

# Factors Affecting Worker's Contribution to The Social Enterprise in Thailand



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*This research examined factors regarding the workers' contributions affecting social enterprises in Thailand based on three pillars of sustainability from the sustainable development goals, which include; social impacts, financial impacts, and environmental impacts, to determine the effectiveness of worker contributions of the worker who work in the social enterprises. This research fills a gap in implementing and determining the relationship between intrinsic factors, extrinsic factors, and organizational context that significantly affect the worker's contribution to social enterprise in Thailand. The research applies the quantitative research method that works with the survey data from 428 workers who work in social enterprises in Thailand and is classified by some participants' demographics such as gender, age, and education level. The results showed that workers who work at the operational status of social enterprise have a different perspective on their contributions' results. Regarding intrinsic factors, most are interested in working conditions with co-workers and doing a job that is not against their beliefs. Still, the other factors do not influence their work contributions. In terms of extrinsic factors, they are only interested in opportunities and valuable in their work. Besides intrinsic and extrinsic factors, it directly affects the organization's context. If the social enterprise wants results following the sustainable development goals, the organization needs to set up the social working principles and standards and develop its social working procedures. Nevertheless, the outcomes from workers are not reflected in all impacts, but it only impacts the environmental part.*

**Keywords:** 'Workers' Contributions, Social Enterprise, Intrinsic & Extrinsic Motivation

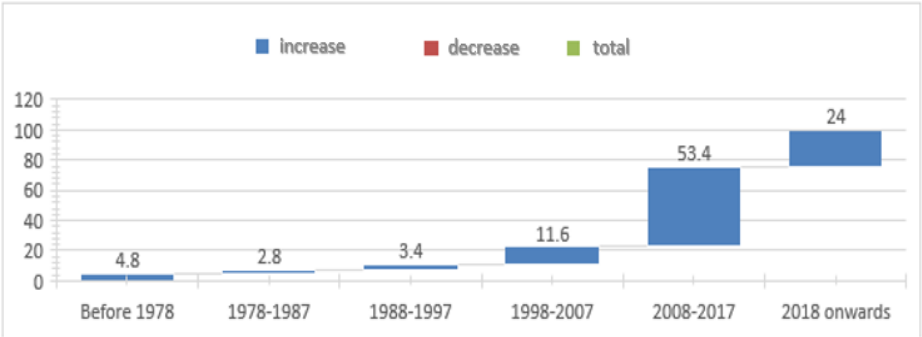
## Introduction

All these years ago, Social enterprise was a new form of business that entrepreneurs worldwide know and bring to real business due to the rise of social and environmental

problems such as poverty. Food shortages and climate change are the needs of consumers who are ready to support products from businesses that serve the purpose of doing social business. Social Enterprise is a business that aims to alleviate social and environmental problems through the sale of products and to use the profits from the sale to solve such and further the business's sustainable development (Yunus et al., 2010).

Every business is eager to find success as the current environment is exceptionally competitive. Regardless of size and market, invest efforts and resources into their purpose that public/community benefit outweighs private benefit (Gross et al., 2002). A social enterprise is one of Thailand's most important business sectors, with explicit social goals that fill its essential need. Social business tries to boost benefits while augmenting advantages to society and the environment, and the benefits are used to subsidize social projects (Di Domenico et al., 2010). There are currently 148 registered social enterprises as of February 2021 Tauber (2021) and are significantly growing, according to figure1.

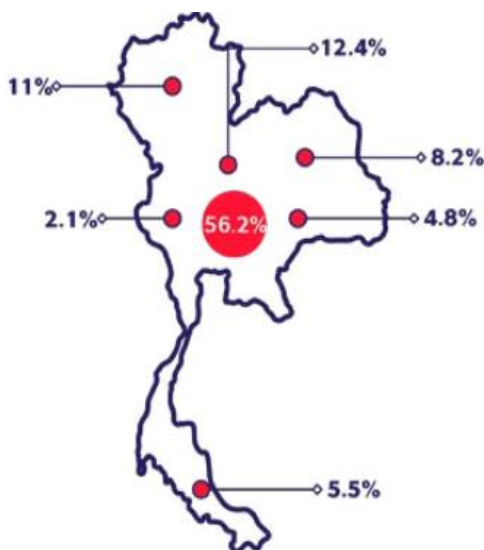
The official agency that supervises social enterprise in Thailand is Thailand Social Enterprise Office TSEO. Social Enterprise appears following the 2010-2014 Social Enterprise Promotion Master Plan (Siriphatrasophon, 2015). The production of products and services set up for the goal from the beginning or further defined or adjusted goals for solving problems and developing communities. Society and/or environment It does not aim to generate maximum profits only for shareholders and owners.



**Figure 1:** Social Enterprise in Thailand by year of establishment (Doherty & Kittipanya-Ngam, 2021).

Social enterprise has a long history in Thailand, growing over the year, and operates within diverse industries. The top three are agriculture, fisheries, livestock, education, and health. It has been a very long journey, and many challenges still exist overcome (Horriگان et al., 2002). According to figure 2, most of them are likely to be based in Bangkok, Thailand.

The most recent wave was established from 2010 onwards when the government introduced a social enterprise promotion policy. The Thai Social Enterprise Office (TSEO) has acknowledged these social enterprises through its publications and media. It was later certified by the National Board on Social Enterprise Promotion when the TSEO was closed. The Office of Social Enterprise Promotion (OSEP) is the current certifying body for social enterprises.



**Figure 2:** Social Enterprise in Thailand by location.

The problematic state of social enterprise is mainly due to the lack of support in many areas, whether it is resources. As a result, social enterprises are difficult to operate with, so all sectors of society must join them. For social enterprise entrepreneurs, there is a need to solve social and environmental problems. To make the lives of people and communities in society better. Many social enterprises and organizations lack capital and management skills, and the innovations used as tools lack support. As a result, there is not enough potential for good management. In addition, the problems with the implementation of social enterprises [Potin et al. \(2021\)](#) are mostly not integrated and are not very professional. Whether it's about managing people working together requires skills and knowledge. Marketing Finding distribution sources, branding, finance Measuring income and money invested. In the production field, sourcing feeds into the production process. Maintaining quality to the market with many standards Dealing with climate change situations and rivalries are increasing.

In addition, most social enterprises lack cooperation between groups and do not have deep business integration. Lack of adequate support from government agencies, private sectors, and communities. To build a long-term support network. However, short-term support, including budget allocation restrictions from government agencies, will directly support it, whether it's about research or innovation. Promoting product certification that has not been supported by government agencies as much as it should. This must be conducted manually; [Siriphatrasophon \(2015\)](#) explained in the research that the issue of taxes that are not exempt from any exemptions, since most registrations are the form of limited companies, even if they operate in the social enterprises. In addition, social enterprises lack operational indicators, with only one dimension: profit and loss. As a result, the management in social enterprises does not balance the operation. This can result in a lack of financial liquidity and being overwhelmed by significant businesses. Coupled with a lack of creativity in self-innovating, that

improves performance (McWade, 2012). Therefore, the approach to depriving the problem of such business. It will require support from various sectors to enable social enterprises to operate sustainably.

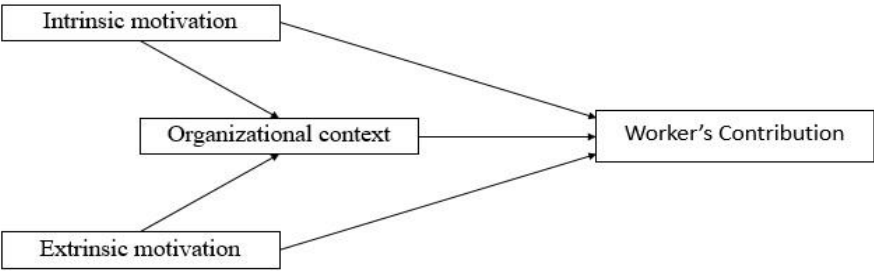
Motivating workers to contribute to social enterprise is an issue of great concern for management teams today. Encouraging workers to succeed in careers is one of the most significant challenges. Employees have been recognized as one of the essential differentiating factors and sources of competitive advantage for companies. Employees are crucial to organizational success; it is necessary to investigate the intrinsic, extrinsic factors and organizational context that significantly affect the worker's contribution.

**Research Questions:** How do intrinsic, extrinsic factors, and organizational context significantly affect the worker's contribution to social enterprise in Thailand?

**Research Objectives:** To determine the relationship between intrinsic factors, extrinsic factors, and organizational context that significantly affect the worker's contribution to social enterprise in Thailand.

Literature review

The theoretical concepts for the present study are the comprehension of intrinsic and extrinsic motivation, organizational context, and worker contribution. The purpose is to contribute to the job satisfaction theories introduced and developed by Maslow–hierarchy of need (Kian et al., 2014): Kian et al. (2014) hierarchy of needs is a theory of motivation that states that five categories of human needs dictate an individual's behavior. Those needs are physiological, safety, love, belonging, esteem, and self-actualization needs (Kian et al., 2014); Herzberg– motivator-hygiene theory (Nguyen et al., 2021): Herzberg's two-factor theory outlines that humans are motivated by two things: motivators and hygiene factors. These two factors are both critical to motivation: motivators encourage job satisfaction, and hygiene factors prevent job dissatisfaction (Alrawahi et al., 2020), Hackman and Oldham– job characteristics model Van den Broeck et al. (2021), López-Cabarcos et al. (2022) – dispositional approach. The incentive theory of motivation refers to the behavioral theory that suggests people are motivated by a drive for incentives and reinforcement (Cox & Klinger, 1988).



**Figure 3:** Theoretical framework of the study shows the relationship between Intrinsic motivation, Extrinsic motivation, organizational context, and 'Worker's Contribution.

### **Intrinsic motivation factors**

Intrinsic motivation refers to the condition of a person who wants to learn or seek something on his own without being involved (Bénabou & Tirole, 2003). For example, an employee works hard in his sense of ambition, not because the boss is forced. According to Ryan and Deci (2020), intrinsic motivation includes achievement, recognition for achievement, the work itself, responsibility, and growth or advancement (Nguyen et al., 2021).

Intrinsic motivation to experience stimulation occurs when someone gets involved in an activity to feel pleasure from engaging in that activity (Gilal et al., 2022). In addition to enhancing performance, intrinsic motivation can influence various habits, triggers, emotions, and attitudes that are necessary rewards to impact experiences (Lemyre et al., 2006). Intrinsic motivation correlates with positive effects, feelings, and beliefs that may protect workers from stressors and negative emotions (Deci & Ryan, 2013)

To sum up, intrinsic motivation factors are generated internally as brain-directed or cognitive factors. Therefore, they are not tangible yet have a practical impact on motivation. They include feelings of responsibility, achievement, and accomplishment. Intrinsic motivations lead to performing meaningful work (Locke & Schattke, 2019). The researchers focus on social service, moral values, working activities, security, and feeling toward co-workers in this research.

### **Extrinsic motivation factors**

External motivation refers to the condition of a person motivated by the outside to see the destination and leads to changes.

Extrinsic motivation refers to the job characteristics of the tasks, including rewards or compensation, such as salaries, work security, and adequate resources (Van den Broeck et al., 2021). It refers to operation performance to achieve some distinct outcomes (Ryan & Deci, 2020). When extrinsically driven, people pursue incentives such as money, prestige, journal publication (Makki & Abid, 2017). Extrinsic motivation provides jobs with external factors such as benefits, constructive feedback, and the worker's desire to meet social expectations (Jessen (2010) instead of doing the job itself. The essential distinction between it and intrinsic motivation is that the latter refers to doing something because it is inherently exciting or pleasant. In contrast, the former refers to doing something because it leads to a particular goal (Deci & Ryan, 2013).

Consequently, extrinsic motivation factors are tangible and visible to others and are distributed by an external party, such as pay, benefits, promotions, and action to save the culprit from punishment. Such factors help draw people in, recruit, and keep them within, the organization. Extrinsic factors are contingent and may change with the level of performance. They are often used to inspire employees to achieve higher levels of goals. This research focuses on compensation, working conditions, advancement, working diversity, and outcome achievement.

### **Organizational context**

The organizational context refers to circumstances or facts related to an event (Kaufmann et al., 2019). The context refers to the organization's characteristics, the

individual, role in an organization, or any other environmental factor. In a study regarding the influence of the context on research in the organizational behavior field, the context was defined by Gary Johns as "situational opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables." According to the author, the organizational context could be integrated into two categories: considering the context in extension and focusing on the contextual variables shaping the behavior and attitudes (Johns, 2006). In the present study, organizational culture and climate Schneider et al. (2013), goal setting Locke and Schattke (2019), equity Tottrup et al. (2009), teamwork, and affiliation Cui et al. (2021) are considered critical variables of organizational context. The organizational application should reflect likes and dislikes, affective task visualization, and matching tasks with interests (Locke & Schattke, 2019)

### **Worker contributions**

Worker contributions refer to the commitment, willingness, and dedication of workers who do in every way for the benefit of social enterprises. Nevertheless, it is intended to reflect on its work to make precise results for society. Focusing on the willingness to work and motivate the work is not possible to avoid studying work engagement, but creating work engagement often overlooks the social outcomes, which are very important for the social enterprise. In this research, the researchers focus on the three major areas: Social Impact, Financial Impact, and Environmental Impact as the observed variable to measure workers' contribution.

Social impact refers to significant or positive changes that solve or at least address social injustice and challenges. Businesses or organizations achieve these goals through conscious and deliberate efforts or activities in their operations and administrations (Markman et al., 2019).

Financial impact refers to the "growth company," a business that generates significant positive cash flows or earnings, which increase at significantly faster rates than the overall economy. A growth company tends to have profitable reinvestment opportunities and retained earnings (Cui et al., 2021).

Environmental impact refers to the business concerned about reducing the environmental impact and preserving natural resources. For example, the company uses products that reduce your reliance on natural resources (e.g., rainwater tanks and solar hot water systems) (Cui et al., 2021).

## **Research Methodology**

The researchers applied the quantitative research method, collecting data from 428 respondents by purposive sampling using reviewed-questionnaire from the Institutional Review Board (IRB). According to the 16 indicator variables, researchers designed 80 items in the questionnaire. The items were measured on a five-point Likert scale, ranging from "strongly disagree" (1) through "neutral" (3) to "strongly agree" (5). The measurement scale of Intrinsic motivation factors is shown in Table 1, Extrinsic motivation factors in table 2, the organizational context in table 3, and worker contributions in table 4.

**Table 1:** *Intrinsic motivation factors*

No.	Variable	Initial Variable
	<b>Social Service</b>	
1	You have the opportunity to serve others from your job.	Int_Sos1
2	You are proud to work or provide services to others.	Int_Sos2
3	You are always looking for opportunities to help society.	Int_Sos3
4	You value the social benefits equivalent to the job benefits.	Int_Sos4
5	You are satisfied with your work, which is beneficial to society.	Int_Sos5
	<b>Moral Values</b>	
1	You can do various tasks without feeling it is morally wrong for your job.	Int_Mov1
2	You can do things that do not go against my religious beliefs in your job.	Int_Mov2
3	You can do things that do not go against my conscience from your job.	Int_Mov3
4	You work at things without feeling hurt or harmful to other people.	Int_Mov4
5	You are satisfied with the moral values of your work.	Int_Mov5
	<b>Working Activity</b>	
1	You feel good that you have been responsible for different tasks.	Int_Wac1
2	You always have work to do that keeps you from feeling free.	Int_Wac2
3	You feel that your working activities are appropriate.	Int_Wac3
4	You feel valued when you are always busy working.	Int_Wac4
5	You are satisfied with the overall picture of your activities within the work.	Int_Wac5
	<b>Security</b>	
1	You feel safe in your work.	Int_Sec1
2	You feel that you can continue to do this job in the future.	Int_Sec2
3	You feel that the company is stable.	Int_Sec3
4	You feel that the company has a fair layoffs and staff transfers method.	Int_Sec4
5	You are satisfied with the job security of your work.	Int_Sec5
	<b>Feelings towards co-workers</b>	
1	You have a good relationship with your co-worker.	Int_Cwk1
2	You are always looking for opportunities to improve relationships with your co-workers.	Int_Cwk2
3	You can feel that your co-workers help and are friendly to you.	Int_Cwk3
4	You appreciate the way co-workers interact with each other.	Int_Cwk4
5	You are satisfied with your current co-worker.	Int_Cwk5

**Table 2:** *Extrinsic motivation factors*

No.	Variable	Initial Variable
<b>Compensation</b>		
1	You receive appropriate compensation from the company.	Ext_Com1
2	You are paid fairly for working compared to your colleagues.	Ext_Com2
3	You are paid well for your work compared to other companies.	Ext_Com3
4	You receive compensation for work worthwhile and your work for the company.	Ext_Com4
5	You are satisfied with the current compensation.	Ext_Com5
<b>Working environment</b>		
1	You work in a proper heat, light, noise, and ventilation environment.	Ext_Evr1
2	You work in an excellent physical environment.	Ext_Evr2
3	You are comfortable in the conditions of work.	Ext_Evr3
4	You can freely modify the more suitable working environment.	Ext_Evr4
5	You are satisfied with your current work environment.	Ext_Evr5
<b>Advancement</b>		
1	You can see the opportunities for advancement in your work.	Ext_Adv1
2	You have the opportunity to be a leader of some work.	Ext_Adv2
3	You can be promoted continuously throughout your career.	Ext_Adv3
4	You are satisfied with how you promote the work of the company.	Ext_Adv4
5	You are satisfied with the opportunity to advance in your work.	Ext_Adv5
<b>Working diversity</b>		
1	You get to work in a variety of works.	Ext_Div1
2	You know you will find new things in your work.	Ext_Div2
3	You are often allowed to do different things every day.	Ext_Div3
4	You are satisfied with your work routine.	Ext_Div4
5	You are satisfied with the opportunity to do new things in your work.	Ext_Div5
<b>Achievement of outcome</b>		
1	You can predict the good results of the work you do.	Ext_Ach1
2	You are proud of the success you have made.	Ext_Ach2
3	You know that the work you do is valuable.	Ext_Ach3
4	You have the opportunity to recognize and be a part of the work's success.	Ext_Ach4
5	You are satisfied with the success that you get from your work.	Ext_Ach5

**Table 3:** *organizational context*

No.	Variable	Initial Variable
	<b>Strategic Objective</b>	
1	Your company has set goals that are relevant to the needs of society.	Ctx_Stg1
2	Your company values setting goals for the company that benefits the society	Ctx_Stg2
3	Your company has a company mission that reflects the social operation.	Ctx_Stg3
4	Your ' 'company's mission is primarily committed to the development of society.	Ctx_Stg4
5	Your company has a proper service planning.	Ctx_Stg5
	<b>Working Procedure</b>	
1	Your company has established adequate and appropriate procedures.	Ctx_Wpd1
2	Your company has sufficient workers for all processes and procedures.	Ctx_Wpd2
3	Your company has a clear and straightforward service procedure.	Ctx_Wpd3
4	Your company has enough skilled workers who work in all processes and procedures.	Ctx_Wpd4
5	Your company changes working procedures according to society's change.	Ctx_Wpd5
	<b>Culture</b>	
1	Your company has established an organizational culture for a social enterprise.	Ctx_Cul1
2	Your company focuses on the vision of conducting business following society.	Ctx_Cul2
3	Your company has set standards and principles of social work for the company's workers.	Ctx_Cul3
4	Your company is adapting to new cultures in line with social change.	Ctx_Cul4
5	Your company must transfer social culture to other relevant units outside the company.	Ctx_Cul5

**Table 4:** *worker contributions*

No.	Variable	Initial Variable
	<b>Social Impact</b>	
1	The company has a good relationship with the community as well as government agencies	Imp_Soc1
2	The company contributes to the better living conditions and livelihoods of the community.	Imp_Soc2
3	The company can be a part of the community.	Imp_Soc3

4	The company cooperates more with suppliers or government agencies for socially beneficial activities.	Imp_Soc4
5	The company can help the community to love and value the community more.	Imp_Soc5
<b>Financial Impact</b>		
1	The company can keep profitable every year.	Imp_Fin1
2	The company can expand its business continuously.	Imp_Fin2
3	The company has lower corporate costs and expenses.	Imp_Fin3
4	The company has increased investment in the past.	Imp_Fin4
5	The company has increased its market value and market share.	Imp_Fin5
<b>Environmental Impact</b>		
1	The company can make the best use of resources for the results.	Imp_Env1
2	The company has a better image for the environmental section.	Imp_Env2
3	The company operates its business without negatively impacting the environment, either directly or indirectly.	Imp_Env3
4	The company has quality products and services that are more environmentally friendly.	Imp_Env4
5	The company contributes to society by realizing the importance of the environment.	Imp_Env5

The researchers applied SPSS23.0 to analyze the reliability and validity of the total questionnaires, involving 16 factors and corresponding 80 measurement items. Import the valid questionnaire data, analyze the reliability of 80 variables measuring the factors of 'workers' contributions to social enterprise, and get the Cronbach's Alpha is 0.972. coefficients of every subscale were more significant than 0.7, and the overall reliability of the questionnaire is good.

Researchers adopt the principal component analysis method, take the common factor of eigenvalues greater than 1, and do an orthogonal rotation through exploratory factor analysis (EFA) to determine the construct validity of the questionnaire. KMO test and 'Bartlett's test of sphericity. The value of the KMO measure is  $0.79 > 0.5$ ; the observed significance level is .000, which means Bartlett's test of sphericity is significant. It is concluded that factor analysis can be applied to the data.

According to the Factor analysis, the common factors with eigenvalues greater than one are obtained from the principal component analysis; an orthogonal rotation is performed. The rotation sums of squared loadings indicate that the ten common factors explain  $> 80\%$  variance. In the rotated component matrix, they obtained. The researchers conduct confirmatory factor analysis (CFA) on aspects of 'workers' contributions to the social enterprise using AMOS 17.0 software. Therefore, CFA is used to test the proposed model of factors of workers' contributions affecting social enterprise performance, measure relationships between latent variables and observed variables, and analyze the correlations between latent variables.

(1) The standardized regression coefficients, or factor loadings, are between 0.50 and 0.95. The regression coefficients represent the impact of latent variables on their observed variables. The result values show that the model fit is good [30].

- (2) The values of correlation coefficients between the latent variables are between 0.4 and 0.7, except for some factors-related values. It can be considered that the correlations between these latent variables are strong enough and may have a higher-order common factor.
- (3) CMIN/DF, RMR, RMSEA, GFI, AGFI, and CFI are selected to measure the model fit. The testing results of these indices meet their criteria [31] very well, respectively, as shown in Table 2. This indicates that the model fit is good; the developed model is applicable.

Research Results

Table 5: Demographics of the participants (n=428)

	Demographic	Frequency	Percent
Gender	Male	212	49.5
	Female	216	50.5
Age	Between 21-25	95	22.2
	Between 26-30	60	14.0
	Between 31- 35	62	14.5
	Between 36-40	97	22.7
	Between 41-45	99	23.1
	Between 46-50	10	2.3
	Between 51-55	5	1.2
Marital Status	Single	196	45.8
	Married	229	53.5
	Divorced	2	0.5
	Widowed	1	0.2
Number of Children	None	192	44.9
	1 Child	149	34.8
	2 Childs	80	18.7
	3 Childs	7	1.6
Education	Vocational School/High School	6	1.4
	College / University	338	79.0
	Graduate School	84	19.6
Income (per month)	Between 10,001-20,000 Baht	159	37.1
	Between 20,001-30,000 Baht	59	13.8
	Between 30,001-40,000 Baht	120	28.0
	Between 40,001-50,000 Baht	25	5.8
	More than 50,000 Baht	65	15.2
Job Changed	Never	23	5.4
	1-2 times	336	78.5
	3-4 times	27	6.3
	5-6 times	4	0.9
	More than six times	38	8.9
Present Job Time	Less than one year	60	14.0
	1 - 3 years	139	32.5
	4 - 6 years	129	30.1
	7 - 9 years	58	13.6
	10 - 12 years	16	3.7
	More than 12 years	26	6.1

Most of the respondents are female, aged between 41-and 45, married, have no children, have College / University background education, income between 10,001-20,000 Baht, skilled jobs changed 1-2 times, and obtained 1 - 3 years of the current job experience.

**Table 6:** *EFA, intrinsic factors*

Selected variables, their factor loadings, and the cumulative variation.

Extraction Method: Principal Component Analysis.

No	Common Factor	Initial Variable	Factor1	Factor2	Factor3
F1	Intrinsic environment	Int_Sec3	.942		
		Int_Cwk5	.940		
		Int_Cwk3	.898		
F2	Intrinsic value in ethics	Int_Mov2		.972	
		Int_Cwk4		.944	
F3	Intrinsic value in satisfaction and safety	Int_Wac5			.942
		Int_Sec1			.933
Cumulative variation: 88.578			44.112	23.064	21.403

Relationships between common factors, intrinsic factors

Factor	Factor	Interrelation Measure
Intrinsic environment	Intrinsic value in ethics	.230
Intrinsic environment	Intrinsic value in satisfaction and safety	.250
Intrinsic value in ethics	Intrinsic value in satisfaction and safety	.116

**Table 7:** *EFA, extrinsic factors*

Selected variables, their factor loadings, and the cumulative variation.

Extraction Method: Principal Component Analysis.

No	Common Factor	Initial Variable	Factor 1	Factor 2	Factor 3
F4	The extrinsic value of Environment and Challenge	Ext_Evr5	.966		
		Ext_Evr1	.963		
		Ext_Evr4	.947		
		Ext_Div3	.945		
		Ext_Div1	.940		
		Ext_Div4	.934		
F5	The extrinsic value of Career Achievement	Ext_Div5		.942	
		Ext_Evr3		.942	
		Ext_Div2		.933	
		Ext_Ach3		.925	
		Ext_Ach2		.909	
F6	The extrinsic value of Promotion and the Work Environment	Ext_Adv4			.983
		Ext_Evr2			.930
Cumulative variation: 89.29			48.067	28.615	12.610

Relationships between common factors

Factor	Factor	Interrelation Measure
The extrinsic value of Environment and Challenge	The extrinsic value of Career Achievement	.220
The extrinsic value of Environment and Challenge	The extrinsic value of Promotion and the Work Environment	.193
The extrinsic value of Career Achievement	The extrinsic value of Promotion and the Work Environment	.243

Table 8: EFA, organizational context

Selected variables, their factor loadings, and the cumulative variation.

Extraction Method: Principal Component Analysis.

No	Common Factor	Initial Variable	Factor1	Factor2
F7	Organizational context, Overall Working Procedure	Ctx_Stg5	.967	
		Ctx_Cul3	.956	
		Ctx_Wpd4	.953	
		Ctx_Stg1	.953	
		Ctx_Cul5	.942	
		Ctx_Cul1	.938	
		Ctx_Wpd1	.935	
		Ctx_Wpd3	.931	
		Ctx_Stg4	.928	
F8	Organizational context, Culture and Strategic Objective	Ctx_Stg2		.987
		Ctx_Cul4		.972
		Ctx_Cul2		.968
		Ctx_Stg3		.928
Cumulative variation = 90.59			65.375	25.218

Relationships between common factors

Factor	Factor	Interrelation Measure
organizational context, Overall Working Procedure	organizational context, Culture, and Strategic Objective	.271

Table 9: EFA, worker contributions

Selected variables, their factor loadings, and the cumulative variation.

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.

No	Common Factor	Initial Variable	Factor1	Factor2
F9	Worker’s Contribution, Environmental impact	Imp_Env3	.981	
		Imp_Env5	.965	
		Imp_Env1	.948	
		Imp_Env4	.916	

F10	'Worker's Contribution, Financial Impact	Imp_Fin5		.976
		Imp_Env2		.939
Cumulative variation = 90.59			65.375	25.218

Relationships between common factors

Factor	Factor	Interrelation Measure
'Worker's Contribution, Environmental impact	'Worker's Contribution, Financial Impact	.294

The process of SEM-based first-order confirmatory factor analysis is described as follows:

- (1) Model formulation. The factors of 'workers' contributions to the social enterprise model include 16 latent variables: 1) Social Service, 2) Moral Values, 3) Working Activity, 4) Security, 5) Feelings towards co-workers, 6) Compensation, 7) Working environment, 8) Advancement, 9) working diversity, 10) Achievement of the outcome, 11) Strategic Objective, 12) Working Procedure, 13) Culture, 14) Social Impact, 15) Financial Impact, and 16) 'Worker's Contribution and the corresponding 80 measured variables. Research hypothesizes latent variables are not independent, builds covariance relationship between latent variables through double arrow, and constructs the initial CFA model.
- (2) Set path coefficients associated with the measurement error as 1, and choose one of the paths from latent variable to its observed variables setting its value as 1. And then, each latent variable has its measurement scale, and if researchers do not set the measurement scale, the model is uncertain. The model can be identified with these constraints.
- (3) Import the questionnaire data, configure the data file, and compute the model using the maximum likelihood estimation method; Select to output the standardized coefficients for the model fitting.
- (4) Model evaluation. Test the result of model fitting according to the standardized regression coefficients and model fit indices (including CMIN / DF, RMR, RMSEA, GFI, AGFI, and CFI).

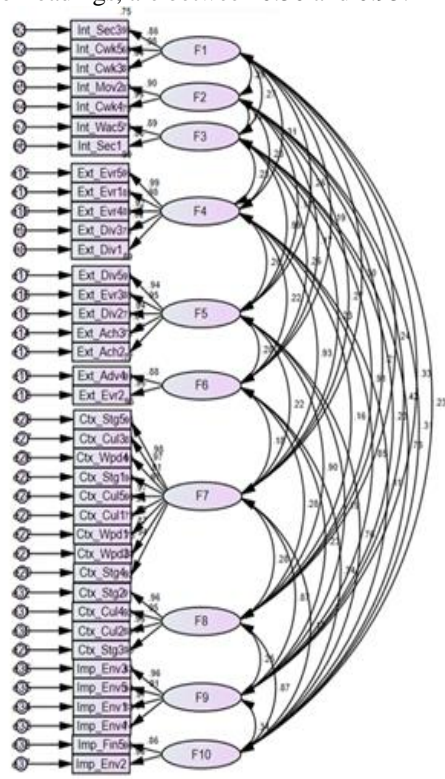
The first-order CFA model for testing factors of 'workers' contributions to social enterprise is shown in Figure 4. The second-order CFA model for evaluating factors of 'workers' contributions to social enterprise is shown in Figure 5.

The established first-order CFA model for workers' contributions to social enterprise shows a good fit with the sample data, and the correlations between the factors are relatively high. Thus, researchers propose a second-order CFA model based on SEM to evaluate workers' social enterprise contributions.

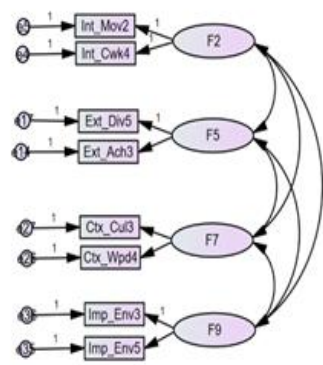
The analysis steps based on the second-order CFA of SEM are as follows.

- (1) Model formulation. A second-order factor named *workers' contributions to social enterprise* is introduced based on the first-order CFA model. Then there are four latent variables and the corresponding eight measured variables.
- (2) Model identification, model fitting, and evaluation are similar to the first-order CFA steps.
- (3) Model Modification. Modify the model reasonably according to the model modification indices, and then researchers will get better model fitting results with the modified model.

The second-order CFA model for evaluating mobile commerce trust is shown in Fig. 5. We can find: As shown in Table 10, all the standardized regression coefficients, or factor loadings, are between 0.50 and 0.95. The results show that the model fit is good.



**Figure 4:** The first-order CFA model for testing factors of 'workers' contributions to social enterprise.



**Figure 5:** The second-order CFA model for evaluating factors of 'workers' contributions to social enterprise

**Table 10:** Model Fitting Indices

Index	Value	Criterion	Result
CMIN/DF	2.05	<3.00	pass the criteria
CFI	0.96	0.95	pass the criteria
RMR	0.009	< 0.05	pass the criteria
RMSEA	0.049	< 0.05, good fit; 0.05-0.10 moderate fit	pass the criteria
GFI	0.988	>0.90	pass the criteria
AGFA	0.957	>0.90	pass the criteria

Relative Chi-Square ( $X^2/df$ ) = 2.05, Comparative Fit Index (CFI) = 0.96, Goodness of Fit Index (GFI) = 0.988, Adjust Goodness of Fit Index (AGFI) = 0.957 and Root Mean Square Error of Approximation (RMSEA) = 0.049, all of them passed the criteria.

## Discussion and Conclusion

Finding the variables of workers' contribution to social enterprises using CFA methodologies, this study discovered that the contributing factors of workers in social enterprises continue to have change correlations depending on the worker group. Each group of employees has distinct needs at distinct intervals (Locke & Schattke, 2019). That is the case; perhaps it is a misunderstanding of the job of social enterprise workers Jessen (2010), but many workers still lack a comprehensive grasp of social enterprises regarding work objectives and real outcomes. In addition, this study can draw on internal factors, external factors, and the organizational context that influence the impact of social enterprises; however, it does not reflect the capabilities and performance of social enterprises in all aspects; rather, it influences only the environmental outcomes of social enterprises. Social firms can be successful simply by displaying their outcomes transparently. Doherty and Kittipanya-Ngam (2021) Intrinsic factors reflect the positive environmental impacts of social enterprises in terms of the working conditions that social enterprise employees have with their co-workers that are consistent with and do not contradict their beliefs. In contrast, other intrinsic factors do not affect working contributions. In contrast, in terms of extrinsic variables, people will contribute fully to the task if they are engaged in it and have the potential to add value to it (Locke & Schattke, 2019). In addition to internal and external factors, the organizational context influences the working contributions of social business employees. Suppose social enterprises want their workers to contribute to work and achieve their righteous performances in accordance with the Sustainable Development Goals. In that case, they must establish principles and standards for work and develop their working processes according to the social benefit to encourage workers to participate in social enterprises and reduce problems in the enterprise management system.

## Recommendation for future works

One main problem of this research is that the questionnaire samples are mainly from social enterprise stakeholders. This limitation may cause the fitting error of the model established. In the future work, on the one hand, the authors highly recommend the prospective study expand the range of distributing the questionnaire to various mainstream user groups of workers' contributions to social enterprise; on the other hand, explore third-party based service solutions of applying trust information, and show the rationale and effectiveness of the solution by experimental analysis.

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